Case Study with Altice, Portugal

Future-Ready Telecoms and Data Services

Background

Altice Portugal is a leading provider of telecommunications, internet and data services.

To sustain expansion and accommodate new and emerging technologies, Altice commissioned the construction of a new, state-of-the-art data center in Covilhã.

The Requirements

Based in Lisbon, Portugal and with main hubs operating in Covilhã, Lisbon, and Porto, Altice Portugal is the country's largest provider of telecommunications services. Due to the company's increasing growth and the evolution of service requirements, many of Altice's data centers were reaching the end of their life spans.

In 2011, Altice began work on the Covilhã data center. The first phase of the center opened in 2013, with six 500 m^2 IT rooms and an additional 9,000 m^2 of white space for development. It needed infrastructure to power data-intensive platforms like SAPO, a search engine and media hub popular in Portugal that continues to expand into other Portuguese-speaking African countries.

As well as replacing decommissioned sites, Altice wanted the new facility to address challenges such as increased cable density, which created hotspots inside server racks and made it difficult to operate and maintain the infrastructure. The company also wanted to increase speed, power and capacity to withstand the future pressure on servers and network capabilities.

The Solution

Altice selected Corning's EDGE™ product line, which provides industry-leading optical fiber cabling to deliver density, speed, and simplicity for the Covilhã data center, as well as a clear migration path for higher speeds.

The preterminated EDGE cabling was faster to deploy than traditional solutions, and the smaller outer diameter enables increased and optimized system density and airflow inside each cabinet, and connectivity of up to 3456 fibers (MTP®/MPO) in a 4-rack unit housing.

In 2017, Altice launched a sample migration project with a tight deadline, with 1400 servers, 1.1 PB of storage, and a heavy virtualisation task force. Based on 100G QSFP transceivers, replacing the typical aggregation of 10G SFP+ based links, the infrastructure was changed from a duplex system to a 12-fiber based structured cabling system.

"Corning's EDGE™ solution was a solid foundation to prepare us for the future and for upgrades with ease. The modular solution did not need to replace the complete infrastructure, because the cabling could partly be reused, decreasing provisioning times and supporting our efforts in sustainability." Jorge Cavaleiro, Data Center Manager, Altice Portugal.

Utilizing Corning's EDGE cables allowed Altice to maximize the energy density of racks, improving efficiency. With the flexibility and durability of the Corning® ClearCurve® fiber ensuring signal stability in tight spaces, the data center can also benefit from a significantly reduced risk of network downtime.

Altice's data center is a Tier 3-certified facility from Uptime, and is certified LEED Gold, while its offices are certified LEED Platinum for their environmental efficiency by USGBC.

By using existing EDGE cabling, Altice could make connections and begin migration as soon as possible. European Technologies Communications Portugal (ETCP), a trusted global logistics partner for Altice and Corning, played a huge role in facilitating the delivery and committed to the tight deadlines, providing service within three weeks of the migration beginning.

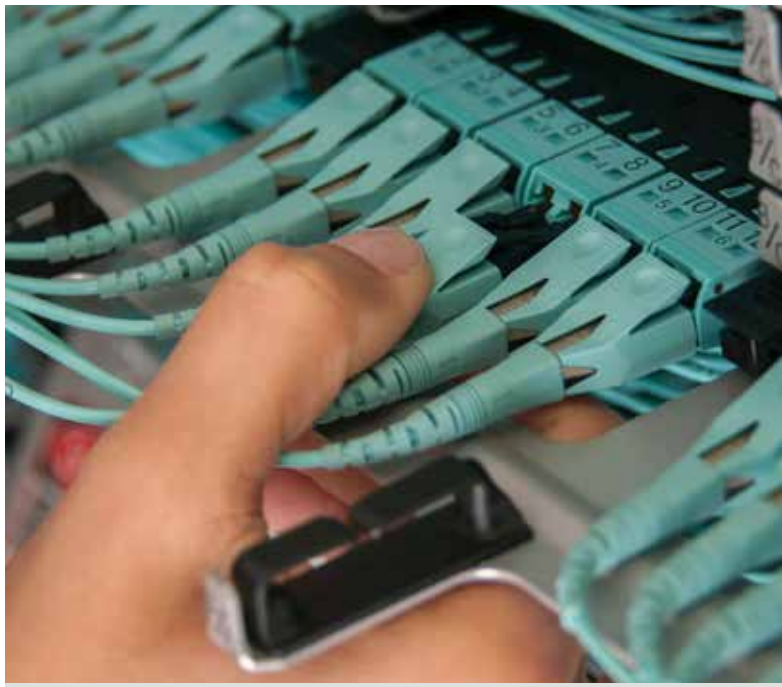
With the solid foundation built using EDGE, Altice began in 2019 testing EDGE8® in the storage area network (SAN). It provides a best-in-class high-density solution, allowing 100 percent fiber utilisation, reduced patch cord complexity, and a future-ready solution to go beyond 100G, 200G, and 400G, without conversion modules.

"We started deploying Corning's EDGE8 solution, as it is helping on port replication and breaking out QSFP ports on the equipment to SFP ports on the servers. It is easy to install and maintain, and easy to troubleshoot if anything goes wrong."

Jorge Cavaleiro, Data Center Manager, Altice

"The future is bright, and we have an infrastructure that is futureproof to address the challenges that we have because of Internet of Things, Artificial Intelligence, and Big Data. We are ready to start to deploy 400G infrastructures if needed. So, we are very confident that we are prepared."

Miguel Covas, Head of Infrastructure, Altice



Conclusion

In the future, Altice is looking to expand the infrastructure that supports these data-intensive and software-defined networking solutions on services like SAPO and beyond. Altice wants to work with Corning to deploy the remaining infrastructure and expand data housing and processing capabilities to unused space at the Covilhã data center. The relationship with Corning represents an opportunity to test and implement bespoke solutions that will make this possible.

CORNING

Watch the Altice video case study online:

corning.com/emea/en/data-centre

Corning Optical Communications GmbH & Co. KG • Leipziger Strasse 121 • 10117 Berlin, GERMANY
+00 800 2676 4641 • FAX: +49 30 5303 2335 • www.corning.com/opcomm/emea